What is claimed is:

1. A method of casing a well bore comprising the steps of:

providing a casing comprising a stress-absorbing material; and

placing the casing into the well bore.

2. The method of claim 1 wherein the casing comprises a sleeve.

3. The method of claim 2 wherein the stress-absorbing material is embedded within the sleeve.

4. The method of claim 2 wherein the stress-absorbing material forms a casing coating disposed on the sleeve.

5. The method of claim 4 wherein the casing coating is disposed on an interior surface of the sleeve.

6. The method of claim 4 wherein the casing coating is disposed on an exterior surface of the sleeve.

7. The method of claim 4 wherein the casing coating has a thickness of less than about three inches.

8. The method of claim 4 wherein the casing coating is applied to the sleeve by extrusion, showering, dipping, brush coating, powder coating, or hot melting.

9. The method of claim 1 wherein the stress-absorbing material comprises a fiber, a resin, or an elastomer.

10. The method of claim 1 wherein a casing collar comprising a stress-absorbing material is connected to an end of the casing.

11. The method of claim 10 wherein the casing collar further comprises a hollow cylindrically shaped housing.

12. The method of claim 10 wherein the stress-absorbing material is embedded within the cylindrically shaped housing.

13. The method of claim 10 wherein the stress-absorbing material forms a collar coating disposed on a surface of the housing.

14. A method of casing a well bore comprising the steps of:

providing a casing comprising

a sleeve, and

a casing coating comprising a stress-absorbing material disposed on the sleeve; and

placing the casing into the well bore.

15. The method of claim 14 wherein the casing coating is disposed on an exterior surface of the sleeve.

16. The method of claim 14 wherein the casing coating is disposed on an interior surface of the sleeve.

17. The method of claim 14 wherein the casing coating has a thickness of less than about three inches.

18. The method of claim 14 wherein the casing coating is applied to the sleeve by extrusion, showering, dipping, brush coating, powder coating, or hot melting.

19. The method of claim 14 wherein the stress-absorbing material comprises a fiber, a resin, or an elastomer.

20. The method of claim 14 wherein a casing collar is connected to an end of the casing.

21. The method of claim 20 wherein the casing collar comprises a hollow cylindrically shaped housing, and a collar coating comprising a stress-absorbing material disposed on the housing.

22. A method of reducing the transmission of stress from a casing to a cement sheath comprising the steps of:

providing a casing that comprises a stress-absorbing material;

placing the casing into a well bore that penetrates a subterranean formation, thereby forming an annulus between the casing and the subterranean formation;

placing a cement composition into the annulus; and

allowing the cement composition to set within the annulus so as to bond the casing to a portion of the subterranean formation.

23. The method of claim 22 wherein the casing comprises a sleeve.

24. The method of claim 23 wherein the stress-absorbing material is embedded within the sleeve.

25. The method of claim 23 wherein the stress-absorbing material forms a casing coating disposed on the sleeve.

26. The method of claim 25 wherein the casing coating is disposed on an interior surface of the sleeve.

27. The method of claim 25 wherein the casing coating is disposed on an exterior surface of the sleeve.

28. The method of claim 25 wherein the casing coating has a thickness of less than about three inches.

29. The method of claim 25 wherein the casing coating is applied to the sleeve by extrusion, showering, dipping, brush coating, powder coating, or hot melting.

30. The method of claim 22 wherein the stress-absorbing material comprises a fiber, a resin, or an elastomer.

31. The method of claim 22 wherein a casing collar is connected to an end of the casing.

32. The method of claim 31 wherein the casing collar further comprises a hollow cylindrically shaped housing.

33. The method of claim 32 wherein the stress-absorbing material is embedded within the cylindrically shaped housing.

34. The method of claim 32 wherein the stress-absorbing material forms a collar coating disposed on a surface of the housing.

35. A method of reducing the transmission of stress from a casing to a cement sheath comprising the steps of:

providing a casing that comprises

a sleeve, and

a casing coating comprising a stress-absorbing material disposed on the sleeve; and

placing the casing into a well bore that penetrates a subterranean formation, thereby forming an annulus between the casing and the subterranean formation;

placing a cement composition into the annulus; and

allowing the cement composition to set within the annulus so as to bond the casing to a portion of the subterranean formation.

36. The method of claim 35 wherein the casing coating is disposed on an exterior surface of the sleeve.

37. The method of claim 35 wherein the casing coating is disposed on an interior surface of the sleeve.

38. The method of claim 35 wherein the casing coating has a thickness of less than about three inches.

39. The method of claim 35 wherein the casing coating is applied to the casing by extrusion, showering, dipping, brush coating, powder coating, or hot melting.

40. The method of claim 35 wherein the stress-absorbing material comprises a fiber, a resin, or an elastomer.

41. The method of claim 35 wherein a casing collar is connected to an end of the casing.

42. The method of claim 41 wherein the casing collar comprises a hollow cylindrically shaped housing, and a collar coating comprising a stress-absorbing material disposed on the housing.

43. An improved casing comprising a stress-absorbing material.

44. The improved casing of claim 43 wherein the improved casing comprises a sleeve.

45. The improved casing of claim 44 wherein the stress-absorbing material is embedded within the sleeve.

46. The improved casing of claim 44 wherein the stress-absorbing material forms a casing coating disposed on the sleeve.

47. The improved casing of claim 46 wherein the casing coating is disposed on an interior surface of the sleeve.

48. The improved casing of claim 46 wherein the casing coating is disposed on an exterior surface of the sleeve.

49. The improved casing of claim 46 wherein the casing coating has a thickness of less than about three inches.

50. The improved casing of claim 46 wherein the casing coating is applied to the sleeve by extrusion, showering, dipping, brush coating, powder coating, or hot melting.

51. The improved casing of claim 43 wherein the stress-absorbing material comprises a fiber, a resin, or an elastomer.

52. An improved casing comprising:

a sleeve; and

a casing coating comprising a stress-absorbing material disposed on the sleeve.

53. The improved casing of claim 52 wherein the casing coating is disposed on an interior surface of the sleeve.

54. The improved casing of claim 52 wherein the casing coating is disposed on an exterior surface of the sleeve.

55. The improved casing of claim 52 wherein the casing coating has a thickness of less than about three inches.

56. The improved casing of claim 52 wherein the casing coating is applied to the sleeve by extrusion, showering, dipping, brush coating, powder coating, or hot melting.

57. The improved casing of claim 52 wherein the stress-absorbing material comprises a fiber, a resin, or an elastomer.